



**Includes:**

- 54 Caliber Pyrodex Pellets
- 50 Caliber Pyrodex Pellets
- 44/45 Caliber Pistol Pellets
- Pyrodex P, RS, Select
- NEW Pyrodex Pellet Cartridge Data



[www.pyrodex.com](http://www.pyrodex.com)



## NEW Pyrodex® Pellet Ammo Pack

Another convenient 50/50 Pyrodex Pellet package. This ammo pack contains 24-50 caliber, 50-grain volume equivalent Pyrodex Pellets and 12-Sabot/260 grain jacketed bullets. Use two 50 grain Pellets with this Sabot/bullet combination for excellent knock down power on deer size game.



## 50 caliber/50 grain Pyrodex Pellets

The original Pyrodex Pellet designed for use in 50 caliber, in-line rifles. A single 50/50 pellet may be used for a light target or small game load while two 50/50 Pellets may be combined to provide a potent 100 gr. equivalent load for big game. Packed 100 Pellets to the box and 24 Pellets to the card.



## 50 caliber/30 grain Pyrodex Pellets

Designed as a companion to the original 50/50 Pyrodex Pellet, the 50/30 pellet allows each shooter to tailor loads for a specific rifle, projectile and use. The 50/30 Pellets may be used in any combination, with other 50/30 Pellets or with 50/50 Pellets in charges up to a maximum load of 100 gr. equivalent. Packed 24 Pellets to the card or 100 Pellets to the box.



## 44/45 Pyrodex Pistol Pellets

Cap and Ball revolvers just entered the modern age! No flask or spout, no loose powder mess; loading has never been cleaner or easier. These 30 grain volume equivalent Pellets are designed for use in 44 or 45 caliber cap and ball revolvers. Packed 100 Pellets to the jar.



## 54 caliber/60 grain Pyrodex Pellets

The convenience of Pyrodex Pellets is now available for the powerful 54 caliber in-line rifle. When coupled with a 54 caliber sabot using a 50 caliber bullet, (or selected 45 cal. bullet) Pyrodex 54 caliber/60 grain equivalent Pellets offer an accurate, powerful solution for the big bore shooter. Packed 100 Pellets to the box.



## Pyrodex P

The principle use for Pyrodex P is in all pistols and in smaller bore rifles, 45 caliber and down. P is also useful as a priming charge in guns which have a tortuous or fouled ignition channel or other ignition problems. P compares to 3F blackpowder on a particle size basis.



## Pyrodex RS

Pyrodex RS can be used in all calibers of percussion muzzleloading rifles and shotguns. It has a wide application of uses and is the most versatile powder in the Pyrodex line. Like all grades of Pyrodex, it burns cleaner and produces less fouling than blackpowder. RS compares to 2F blackpowder on a particle size basis.



## Pyrodex Select

Select is an enhancement to our RS grade of Pyrodex. Using RS or 2F data in a volumetric measure, Select can significantly reduce group size. Wonderful news to the deer hunter is that Select performs well with sabots and conical bullets. Select has also become a favorite among many blackpowder cartridge shooters because of its exceptional consistency. For target use it is the "best of the best."



Pyrodex Pellets offer the modern, in-line rifle shooter the most consistent, easy to use propellant ever offered for a muzzleloading firearm. Now available in 50 caliber/30 grain, 50 caliber/50 grain, and 54 caliber/60 grain for in-line muzzleloading rifles and 44/45 caliber/30 grain for cap and ball revolvers. Pyrodex Pellets offer a wide selection of choices for the shooter.

Light loads for practice and plinking or heavy loads for maximum performance on big game, it's simply a matter of identifying the combination of Pellets that provide the performance and accuracy to get the job done. Accuracy may vary from rifle to rifle and with different types of projectiles. Shooters are encouraged to try more than one projectile to determine the maximum potential of their firearm.

Years of research and development led to the introduction of Pyrodex Pellets. During the R&D phase, many things were learned about the preparation of an in-line muzzleloader for firing and about projectiles. These tips will help the shooter to enjoy clean, consistent ignition and amazing accuracy.

- The nipple and breech plug must be clean and dry for proper ignition to occur. This is true of loose powder as well as Pyrodex Pellets. To guarantee a clean and dry nipple and breech plug the nipple should be cleaned with a pipe cleaner followed by a nipple pick used to clean out the flash hole. The same treatment should be given to the breech plug. After careful cleaning, spray a commercially available gun degreaser through the nipple and the breech plug. These high pressure degreasing sprays will flush all solid debris, lubricants, solvents and moisture from the flash channel providing an uninhibited path for the flash to follow from nipple to pellet.
- When shooting a 50 caliber rifle use sabots designed for use with 45 caliber bullets. Sabots designed for 44 caliber bullets have proven to be less successful. When shooting a 54 caliber rifle, use sabots designed for use with 50 caliber bullets. The bullet may be either a 50 caliber handgun bullet or a 50 caliber conical bullet. Both will fit the sabot and produce good accuracy. 54 caliber rifles have proven to be inaccurate with sabots using 44 or 45 caliber bullets. Proper sabot selection is critical for good performance. If the shooter has a problem with the sabot it will be immediately apparent. When a sabot fails, it is a catastrophic failure causing very large groups, not a simple opening of the group. If the shooter has a question about sabot performance it is not difficult to find fired sabots for examination. Failed sabots will be blown to pieces while a sabot that performs well will always have an intact base even though they may lose a petal or two.

\*\*\*C & D Special Products, Inc. developed a 54/45 sabot that is successful with 54 caliber Pyrodex Pellets. For additional information on this sabot and how to identify it, contact C & D Special Products, 1-800-922-6287.

- Conical bullets may be used with limited success in 50 caliber rifles. 100 gr. (2-50 caliber/50 grain Pellets) must be used along with a fiber or felt wad between the base of the bullet and the Pellets to achieve good accuracy. Use of other Pellet combinations or use without a fiber wad will result in poor accuracy. Failure to use a felt or fiber wad may cause a flaming Pellet to exit the bore. Conical bullets with or without fiber or felt wads are not recommended for use in 54 caliber rifles using Pyrodex Pellets. Poor accuracy results from the use of these projectiles.

## ***Warnings and Instructions For Use***

Before using Pyrodex Pellets, read and understand all warnings and instructions contained on the product label and this pamphlet.

### ***GENERAL WARNINGS FOR ALL PYRODEX PELLETS***

**DANGER EXPLOSIVE:** Pellets are extremely flammable. Failure to follow warnings and instructions for use, or misuse of this product in any way, may cause personal injury or death to the user or bystander, as well as damage to the firearm and other property. Use Pellets only in strict accordance with loading instructions.

1. Keep Pellets out of reach of children.
2. Do not take Pellets internally.
3. Do not contaminate Pellets with dirt or moisture.
4. Keep Pellets in original, closed container until used. Do not place Pellets loose in clothing.
5. Do not smoke when handling Pellets.
6. Keep Pellets away from heat, sunlight, open flame, sparks from any source, static electricity and moisture.
7. Do not subject Pellets to impact or friction.
8. Store Pellets in original container in a cool, dry place, away from primers, explosives, solvents, gasoline, or other sources of ignition.

## **GENERAL WARNINGS (continued)**

9. Always wear ear and eye protection when handling, loading and firing firearms, and using Pellets.
10. Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead and other substances known to cause birth defects, reproductive harm, and other serious physical injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure.
11. Pyrodex Pellets are intended to be used in place of loose powder. Do not combine Pellets with loose powder.
12. Never mix powders or use nitrocellulose based smokeless powder in muzzleloading firearms.
13. Do not ignite Pellet in hand or outside of firearm.
14. Do not break, cut or modify Pellet by any means.
15. Close powder container prior to discharging firearm.

### **INTENDED USE - RIFLE PELLETS:**

Pyrodex rifle Pellets are designed for use only in modern, in-line rifles, of the specified caliber (50 caliber Pellets in 50 caliber rifles and 54 caliber Pellets in 54 caliber rifles) utilizing the projectiles listed in the data section of this brochure.

### **INTENDED USE - PISTOL PELLETS:**

Pyrodex Pistol Pellets are designed and intended for use only in newly manufactured modern replica 44 and 45 caliber cap and ball revolvers. Any other use of the Pyrodex Pistol Pellet is not recommended.

### **MISUSE WARNING - RIFLE PELLETS:**

Use of Pellets in sidelock muzzleloading rifles, in flintlock muzzleloading rifles, using a patched round ball, or the use of conical lead bullets without a fiber wad is not recommended. Due to variations in the size and type of flash channels of such rifles, as well as different rifle bore diameters and conical bullet sizes, hangfires (a delayed ignition of the Pellet) or an improper gas seal of the projectile may occur. These conditions could cause the projectile or a burning Pellet particle to exit the barrel in a hazardous manner which could cause personal injury or death to the user or bystander as well as damage to firearm.

### **MISUSE WARNING - PISTOL PELLETS:**

Use of Pyrodex Pistol Pellets in original antique cap and ball revolvers, side hammer muzzleloading pistols or any other use other than the intended use is not recommended. Failure to use only as intended could create a hazardous condition resulting in personal injury or death to the user or bystander as well as damage to firearm.

### **PROJECTILE WARNING**

Never load and fire a Pellet without a projectile in the barrel. To do so may cause a burning Pellet to exit the barrel causing personal injury or property damage to the user or bystanders.

When loading any projectile, be certain that the projectile fits the bore or chamber snugly and forms a proper gas seal. Failure to do so may result in decreased performance, poor accuracy or the possibility of a burning Pellet particle which exits the barrel, which may cause personal injury or property damage to the user or bystander.

### **PRODUCT SETTLEMENT DURING SHIPMENT**

During shipment, normal settling of product may cause slight Pellet powder residue to form in bottom of container. This condition does not affect ballistic performance of the Pellets.

### **MAXIMUM LOAD WARNING**

#### **50 CALIBER RIFLE:**

50 Caliber Pyrodex Pellets come in two (2) sizes:

- 1) 50 grain volume equivalent which equals 50 grains of loose powder by volume.
- 2) 30 grain volume equivalent which equals 30 grains of loose powder by volume

The maximum load per shot **should never exceed** total Pellets containing more than 100 grains volume equivalent. That means, no more than:

- 1) Three (3) 30 grain Pellets, or
- 2) Two (2) 50 grain Pellets, or
- 3) One (1) 50 grain Pellet and one (1) 30 grain Pellet

#### **54 CALIBER RIFLE:**

54 Caliber Pyrodex Pellets come in one size only:

60 grain volume equivalent which equals 60 grains of loose powder by volume.

The maximum load per shot **should never exceed** 120 grains (2) Pellets.

## **44/45 CALIBER PISTOL:**

The maximum load per each revolver chamber should never exceed one (1) revolver Pellet. Exceeding maximum load may cause damage to the firearm and cause personal injury or death to the shooter or bystanders.

\*At no time should the shooter exceed the firearm manufacturers recommended maximum load. If there is a question concerning the firearm maximum load please contact the firearm manufacturer for guidance.

Exceeding maximum load may cause excessive pressure and could cause damage to the firearm and cause personal injury or death to the shooter or bystanders.

### **CAUTION:**

Some rifle manufacturers may recommend the use of a number of Pellets in their rifles which exceed Hodgdon's "Maximum Load Warning". Hodgdon specifically disclaims any and all liability arising out of the use of any data which exceeds Hodgdon's "Maximum Load Warning" and the user assumes all risk in doing so.

## **RIFLE LOADING INSTRUCTIONS**

### **IMPORTANT:**

Each Pyrodex Pellet contains a black ignitor on one end. When loading the Pellet, for best ignition, place the black ignitor end of the Pellet into the barrel first.

### **LOADING WARNING:**

Failure to load firearm in strict accordance with these instructions may cause personal injury or death to the user or bystander as well as damage to the firearm.

### **BEFORE LOADING:**

1. Place gun on safety as per firearm manufacturer's instructions.
2. Be certain that firearm is unloaded and that the barrel and flash channel are clean, dry and free of oil or lubricant. Run a clean, dry cloth patch down the barrel prior to loading.
3. Clear flash channel by placing and firing at least two (2) percussion caps on nipple with gun muzzle pointed in a safe direction. Be sure no cap foil plugs the nipple.

### **TO LOAD:**

1. Keep firearm on safety. Place muzzle away from body and insert the correct number of Pyrodex Pellets with black ignitor end into the gun muzzle first (see maximum load warning). Next, insert sabot bullet or fiber wad and conical bullet into muzzle and seat firmly on top of Pellet with ramrod. WARNING: Do not pound on ramrod or seat projectile with excessive force so as to crush Pellet. However, be certain that no air space exists between the projectile and Pellet. If an air space exists, the projectile becomes an obstruction in the barrel, which upon firing the gun, may cause personal injury or death to the user or bystander as well as damage to the firearm.
2. Place muzzle in a safe direction and insert a percussion cap on the nipple. Aim firearm in safe direction, remove safety and fire.

**CAUTION:** Repetitive loading and firing of firearm without allowing time for barrel to cool between shots is not recommended. Accuracy will decrease as barrel heats up.

## **PROJECTILES FOR USE WITH PYRODEX PELLETS**

**Sabots:** Due to the higher energy, more efficient nature of Pyrodex Pellets, certain sabots may not function properly. To insure shooter satisfaction with Pyrodex Pellets it is recommended that the following guidelines be followed when selecting sabots:

1. Use only one piece sabots; sabots designed in two or three pieces will not survive Pyrodex Pellets.
2. For 50 caliber rifles, select a sabot that will use a 45 caliber bullet.
3. For 54 caliber rifles, select a sabot that will use a 50 caliber bullet. C & D Special Products, Inc. and T/C developed a 54/45 sabot that is compatible with 54 caliber Pyrodex Pellets. For additional information on this sabot and how to identify it, contact C & D Special Products, 1-800-922-6287.

Failure to follow these recommendations may result in poor accuracy and low customer satisfaction. Sabot failure is expected with any sabot that does not meet our recommendations. A sabot failure is a very evident event. Recovered sabots will be fragmented and torn. A sabot that fails will cause the bullet to behave erratically; it is impossible to keep 5 shots on a 3' x 3' sheet of plywood.

*(continued next page)*

**Conical bullets with fiber wads:** To insure successful performance of conical bullets in 50 caliber rifles with Pyrodex Pellets, a charge of 100 grains, two (2) 50 grain Pellets and a fiber wad **must** be used between the Pellets and the base of the conical bullet. The fiber wad will provide an adequate gas seal at the base of the conical bullet preventing gas from escaping around the conical bullet. Failure to use a fiber wad with a conical bullet may result in excessive leading of the bore, poor accuracy, low velocity and/or launching a flaming Pellet downrange, igniting ground cover upon impact. (Read warnings) Fiber wads are commercially available from a number of sources; they may be made from wool felt or plant fiber materials. These wads are generally lubricated with an all natural lube which assists in the creation of a gas seal and keeps fouling soft in the bore.

The use of 54 caliber conical bullets with or without fiber or felt wads is not recommended. Poor accuracy will result from the use of these projectiles.

## PISTOL LOADING INSTRUCTIONS

### LOADING WARNING

Failure to load firearm in strict accordance with these instructions may cause personal injury or death to the user or bystander as well as damage to the firearm.

### BEFORE LOADING

1. Follow firearm manufacturer's instructions for making gun safe prior to loading.,
2. Be certain that revolver is unloaded, that nipples are free of lubricant, clear and that no percussion caps are on nipples.

### TO LOAD

1. Position unloaded revolver with barrel in vertical upright position, preferably in a loading stand.
2. Place revolver hammer in half-cock position.
3. With muzzle of revolver barrel away from body, rotate cylinder and align an empty chamber in cylinder with barrel and drop one (1) Pyrodex Pistol Pellet down barrel into empty chamber.
4. Rotate cylinder to next empty chamber and repeat step 3 until five (5) chambers are loaded. (**WARNING**) it is recommended as a safety precaution that only five (5) chambers be loaded, leaving an empty chamber for the hammer to rest on when the remaining chambers are loaded.
5. With five chambers now loaded with Pellets, rotate cylinder and place a .44 or .45 caliber Ox-Yoke Wonder Wad® (or equivalent felt wad) in each chamber, seating each wad with revolver loading lever on top of Pellet.
6. Next, rotate cylinder and place correct size .44 or .45 caliber pure lead round ball in each chamber, seating each ball with loading lever on top of felt wad.

**WARNING:** Be certain that no air space exists between the projectile (ball) and Pellet. If an air space exists, the projectile becomes an obstruction in the chamber, which upon firing the revolver, may cause personal injury or death to the user or bystander, as well as damage to the firearm.

7. With revolver barrel pointed in a safe direction, rotate cylinder and insert proper size percussion cap on each of the nipples of the loaded chambers. Revolver is now ready to be fired. Aim firearm in safe direction, place hammer in full cock position and fire.



# PELLETS

## IN METALLIC CARTRIDGES

CARTRIDGE	BULLET	PELLETS USED	VELOCITY	PRESSURE	CRIMP	WAD
44 Rem Mag	165 RNFP	1 - Pyrodex Pistol	1145 fps	11,700 CUP	Y	N
44 Rem Mag	185 RNFP	1 - Pyrodex Pistol	1109 fps	13,000 CUP	Y	N
44 Rem Mag	200 RNFP	1 - Pyrodex Pistol	1077 fps	13,100 CUP	Y	N
44 Rem Mag	240 SWC	1 - Pyrodex Pistol	1053 fps	17,100 CUP	Y	N
44/40 WCF	200 RNFP	1 - Pyrodex Pistol	943 fps	12,700 CUP	Y	N
45 Colt	165 RNFP	1 - Pyrodex Pistol	939 fps	6,400 CUP	Y	N
45 Colt	180 RNFP	1 - Pyrodex Pistol	920 fps	7,000 CUP	Y	N
45 Colt	200 RFNP	1 - Pyrodex Pistol	888 fps	7,700 CUP	Y	Y
45 Colt	230 RFNP	1 - Pyrodex Pistol	846 fps	10,200 CUP	Y	Y
45 Colt	230 RFNP	1 - Pyrodex Pistol	855 fps	8,800 CUP	N	N
45 Colt	230 RFNP	1 - Pyrodex Pistol	870 fps	9,600 CUP	Y	N
45 Colt	250 RFNP	1 - Pyrodex Pistol	787 fps	9,900 CUP	Y	Y
45 Colt	250 RFNP	1 - Pyrodex Pistol	840 fps	7,900 CUP	N	N
45 Colt	250 RFNP	1 - Pyrodex Pistol	818 fps	10,000 CUP	Y	N
45-70 Gov.	405 RNFP	1 - 50/50	989 fps	14,100 CUP	Y	Y
45-70 Gov.	405 RNFP	1 - 50/50	1015 fps	14,200 CUP	Y	N
45-70 Gov.	405 RNFP	2 - 50/30	1270 fps	27,200 CUP	Y	Y
45-70 Gov.	405 RNFP	2 - Pyrodex Pistol	1231 fps	21,900 CUP	Y	Y



# PELLET DATA

## MUZZLELOADING RIFLES WITH SABOT LOADS

SABOT CAL./BULLET CAL.	BULLET WT./DIAMETER	PELLETS USED	VELOCITY FPS
50 cal./45 cal.	250 gr./.452"	1-50 cal./50 gr. + 1 - 50 cal./30 gr.	1406
50 cal./45 cal.	250 gr./.452"	2 -50 cal./50 gr.	1740
50 cal./45 cal.	300 gr./.452"	1-50 cal./50 gr. + 1 - 50 cal./30 gr.	1375
50 cal./45 cal.	300 gr./.452"	2 -50 cal./50 gr.	1711
54 cal./45 cal.	250 gr./.452"	2-54 cal./60 gr.	1701
54 cal./45 cal.	300 gr./.452"	2-54 cal./60 gr.	1658
54 cal./50 cal.	325 gr./.500"	2-54 cal./60 gr.	1645
54 cal./50 cal.	410 gr./.500"	2-54 cal./60 gr.	1423

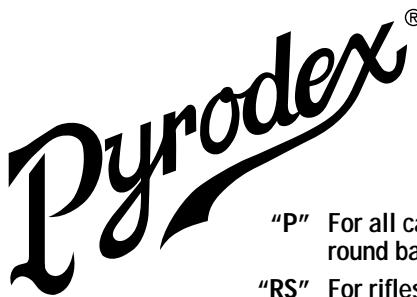
## MUZZLELOADING RIFLES WITH CONICAL BULLETS\*

BULLET	CALIBER	BULLET WEIGHT/TYPE	PELLETS USED	VELOCITY FPS
Buffalo	50	350 gr. HPHB	2 - 50 cal./50 gr.	1531
Buffalo	50	385 gr. HPHB	2 - 50 cal./50 gr.	1500
CVA	50	300 gr. Deer Slayer	2 - 50 cal./50 gr.	1634
Hornady	50	385 gr. Great Plains	2 - 50 cal./50 gr.	1547
Hornady	50	410 gr. Great Plains	2 - 50 cal./50 gr.	1462
T/C	50	350 gr. MaxiHunter	2 - 50 cal./50 gr.	1518
T/C	50	370 gr. MaxiBall	2 - 50 cal./50 gr.	1515
T/C	50	460 gr. MaxiBall	2 - 50 cal./50 gr.	1317
T/C	50	470 gr. MaxiHunter	2 - 50 cal./50 gr.	1301

\* All conical bullet loads require the use of a felt wad between the Pellets and the base of the bullet. Do not reduce powder charge for 50 caliber loads. Conical bullets with or without fiber or felt wads are not recommended in 54 caliber rifles when Pyrodex Pellets are used.

## MUZZLELOADING RIFLES WITH BLACK BELT BULLETS

BULLET WEIGHT	CALIBER	PELLETS USED	VELOCITY FPS
295 gr.	50	1-50 cal./50 gr. + 1-50 cal./30 gr.	1432
295 gr.	50	2-50 cal./50 gr.	1710
348 gr.	50	1-50 cal./50 gr. + 1-50 cal./30 gr.	1321
348 gr.	50	2-50 cal./50 gr.	1601
405 gr.	50	1-50 cal./50 gr. + 1-50 cal./30 gr.	1100
405 gr.	50	2-50 cal./50 gr.	1386
444 gr.	50	2-50 cal./50 gr.	1292
520 gr.	50	2-50 cal./50 gr.	1166
295 gr.	54	2- 54 cal./60 gr.	1329
348 gr.	54	2- 54 cal./60 gr.	1243
405 gr.	54	2- 54 cal./60 gr.	1356
444 gr.	54	2- 54 cal./60 gr.	1334
520 gr.	54	2- 54 cal./60 gr.	1307



Pyrodex is the propellant designed specifically for blackpowder percussion and cartridge firearms which have been found by a competent gunsmith to be in good shootable condition. Pyrodex is currently available in three grades or granulations:

- "P"** For all caliber pistols and 45 caliber or smaller rifles with round ball projectiles
- "RS"** For rifles and shotguns
- "Select"** A match grade version of RS which yields greater consistency and accuracy

Pyrodex is designed to be used on the same volume basis as blackpowder. Most shooters use an adjustable **volumetric** measure which has been calibrated with blackpowder to throw a specific charge of blackpowder as indicated on the scale of the measure.

Pyrodex is lighter in weight than blackpowder and weighs only about 70% as much as blackpowder. However, because Pyrodex yields more energy per pound than does blackpowder, the same **volume** of Pyrodex gives similar performance to blackpowder. **Pyrodex loads given in this manual for muzzleloading guns are measured by volume, not weight.** Note that you will get approximately 30% more shots per pound than with blackpowder.

Due to the safer ignition characteristics of Pyrodex, it does not function well as a priming powder in flintlocks. Pyrodex can be successfully used in flintlocks if you first pour about 5 grains of 4Fg blackpowder in the bore followed by Pyrodex as the main charge. Use 4Fg in the flash pan.

## THE BASICS OF PYRODEX LOADING.

Do not exceed the maximum load specified by the gun or bullet manufacturer! That is the key to safety.

Choose the right projectile for your gun! That is the key to performance.

Be consistent in your loading procedure! That is the key to repeatable accuracy.

Three keys that are basic to Pyrodex loading... if you get these right, you should have safe, enjoyable shooting that brings satisfying results. We don't mean that this is the whole picture, but without these three keys, your shooting can be most disappointing.

**Before** you continue reading about Pyrodex loading, we suggest that you re-read the warnings contained in this brochure. Pyrodex is an explosive and guns can be dangerous. If you have a family member or friend who will be using your gun, be certain they read this brochure, too. We want everybody who uses Pyrodex to do a lot of shooting. And we don't want them to get hurt.

Pyrodex causes much less fouling than does common blackpowder. It is more often possible with Pyrodex to seat the projectile without wiping or cleaning between shots than with blackpowder. If it becomes difficult to seat the projectile, the gun should be cleaned. With Pyrodex and a patched round ball, cleaning between shots should not be necessary. With heavier projectiles and/or greater powder loads, fouling increases. In all cases, clean your gun to remove powder and lead fouling before it becomes abnormally difficult to seat the projectile.

The ease of loading often increases as the barrel is seasoned with Pyrodex. The loading procedure needs to be safe and consistent. If it is not relatively easy to load, both safety and consistency are in question. To achieve the best accuracy from your gun you should try a variety of powder charges and projectiles to determine what combination works best.

Pyrodex does not require any special cleaning fluids. **When you finish shooting, clean your gun.** Use hot, soapy water as a cleaning medium, or use Pyrodex EZ CLEAN. Clean the bore with patches until it comes away clean. Don't spare the elbow grease!

***These are the basics – Safety, Performance, Consistency, Attention to Detail, and Cleanliness.***

# LOADING INFORMATION AND CAUTIONS

Information given in this brochure is approximate since each gun shoots differently and densities vary from lot to lot. The shooter should try various loads to establish the load which works best in his gun. As with blackpowder, Pyrodex can be overloaded to create dangerous pressures. The most common sign of high pressure in a percussion gun is the hammer being reset to half cock during firing. Reduce your load if this condition occurs. Do not weigh powder charges. All loads listed here are measured with a blackpowder measure. Do not exceed manufacturers maximum loads or use multiple projectile loadings as this will create dangerous pressures, which may result in severe personal injury or death to the user and/or bystanders.

## THE USE OF PYRODEX IN METALLIC CARTRIDGES

Along with the growth in popularity of Cowboy Action Shooting has come a growth in the number of shooters wanting to load Pyrodex into cartridges. It seems that the knowledge held by our grandfathers has gone the way of the wagon train and is lost to history. The modern shooter is having to relearn skills that date back over a hundred years.

The mechanics of reloading metallic cartridges are quite simple but there is one requirement of the modern shooter that cannot be overlooked. The modern loader must set aside his knowledge of loading with smokeless powders and embrace the ways of years gone by. It must always be remembered that blackpowder and Pyrodex are very inefficient powders by today's standards. The methods described here are consistent with good loading practices for Pyrodex and should be followed without regard to smokeless loading practices.

Pyrodex works best in straight walled cases but it will work satisfactorily in bottle necked cartridges as long as our warnings are observed.

**WARNING:** Never allow an air space in any cartridge loaded with Pyrodex. The loading density must be 100% by light compression. 100% loading density may be accomplished in two ways:

- 1) The case is filled with powder to a level that will provide light compression of the powder (1/16" to 1/8" when the bullet is seated. Bottle necked cases must be loaded in this manner.
- 2) In straight walled cases filler wads may be used to reduce the powder charge. This is done by inserting card or Polyethylene wads between the base of the bullet and the powder. Wads should be sized to the internal diameter of the cartridge case. The loader must be careful to insure that there are no void spaces in the assembled cartridge. **NEVER** use any other type of filler material. Be careful as loads are reduced. At some point, the bullet will fail to exit the bore.

When loading cartridges with Pyrodex do not use a powder measure designed for smokeless powders (read warnings). Powder measures of this type may crush or shear powder kernels and may create an unsafe condition. It is recommended that the loader use a volumetric powder measure designed for use with blackpowder.

Pyrodex does produce a corrosive residue from combustion. Even though this fouling is softer than the fouling produced by blackpowder, firearms should be cleaned after each use. Hodgdon Powder Co. recommends the use of natural cleaning solvents like Pyrodex EZ Clean.

Cartridge cases that have been fired using Pyrodex require special care. As soon as possible after firing, cases should be de-primed and immersed in white vinegar. The acidity of the vinegar will neutralize the corrosive residues remaining in the case. Care should be taken to limit the soaking time of the cases in the vinegar to 10 minutes. Soaking for a longer time may cause etching of the brass case resulting in shortened case life. Rinse cases with clear water, dry and polish in a tumbler with corn cob or walnut shell media.

## THE USE OF PYRODEX BY WEIGHT

Historically, blackpowder has been loaded on a volumetric basis, even in cartridges. Pyrodex is designed to be a volume to volume replacement for blackpowder and is specifically formulated to be used with volumetric measures designed for blackpowder (Read warnings).

If you feel you must measure Pyrodex by weight, there are certain steps that the shooter must follow. To complete the loading process you must have:

- 1) Volumetric blackpowder measure (do not use a measure designed for smokeless powders)
- 2) Powder scale
- 3) Calculator – Because each lot of Pyrodex is regulated by volume, the actual weight of the powder may vary from lot to lot.

For each new lot number you will:

- 1) Fill the blackpowder volumetric measure to the desired level.
- 2) Pour the contents into the weigh pan of the scale and record the weight. Repeat nine times.
- 3) Average the weight of the 10 charges. This weight will be the correct charge weight for this lot of powder.
- 4) This procedure must be repeated for each type (RS, Select, P) of Pyrodex every time you change lot numbers.

**Remember, Pyrodex was designed to be used on a volume to volume replacement basis with blackpowder. Increased accuracy is usually not achieved by the practice of weighing each charge.**

## **WARNING**

Pyrodex is not intended and should not be used for any purpose other than as a propellant for blackpowder percussion and cartridge firearms, which have been found by a competent gunsmith to be in safe shootable condition.

Hodgdon Powder Company does not set maximum charges of Pyrodex nor does it provide recommended loads for specific guns. Persons using Pyrodex should not exceed maximum loads specified by the gun or bullet manufacturer. Exceeding these maximum loads can result in injury or death to the user and/or bystanders.

The information presented in this brochure is based upon results obtained in our ballistics laboratory, or is provided by the projectile manufacturers and is offered as an aid to shooters, to be employed at their own discretion and risk. Safe loading practices should be observed at all times. Since we have no control over the circumstances of loading, we assume no liability for the results obtained, and we guarantee only that our powder meets our exacting standards.

### **PYRODEX BALLISTIC DATA**

Ballistic data shown in this brochure has been provided by projectile manufacturers or developed in our laboratory under strictly controlled conditions. Ballistic data can vary considerably depending on many factors including components used, how such components are assembled, degree of fouling or leading of the barrel, the type of firearm used, and the loading techniques and safety precautions utilized by the individual.

**NEVER** mix any two powders regardless of type, brand or source. **NEVER** substitute any smokeless powder for Pyrodex.

### **STORAGE OF PYRODEX**

Do not store Pyrodex with other combustible materials. Always keep the container of Pyrodex tightly closed to prevent spillage or contamination of the powder. Keep Pyrodex and all powders in their original containers with proper warning labels.

Pyrodex should not be exposed to open flame, sparks, heat, impact, friction or allowed to become contaminated with oil, grease, dirt, sand, or any other foreign materials, or left open or exposed to humid conditions. Moisture will ruin Pyrodex. **Keep cap on the can when not being used.** Pyrodex should not be stored in glass containers. Do not store Pyrodex in flasks or horns for long periods of time. Stocks should be rotated. (Use oldest first.)

### **BEFORE USING PYRODEX**

- Be certain your firearm is in good shootable condition. Have it examined and approved by a competent gunsmith.
- Read and understand this Pyrodex brochure and know safe operation of your firearm.
- Know characteristics of Pyrodex as described in this brochure.
- Know the difference between Pyrodex and modern smokeless powder as used in conventional firearms.
- Do not confuse Pyrodex with modern smokeless powder. Color is not an indication of the type of powder.

### **USING PYRODEX**

- Know and use safe operating methods when handling and loading Pyrodex.
- Always keep the gun pointed in a safe direction.
- Always keep fingers off the trigger until ready to shoot.
- Always keep the gun unloaded until ready to use.
- Keep muzzle away from body at all times.
- Always wear adequate eye and ear protection.
- Do not increase loads past the recommendation of the gun and/or bullet manufacturer.
- Do not dispense directly from container into firearm. Use a blackpowder measure.
- Always keep containers closed unless filling your blackpowder measure.
- Be certain no ember is smoldering in barrel before pouring powder.
- Seat projectile against powder charge as air space between powder charge and projectile may create a hazardous situation.
- Do not pound on or bounce the ramrod on the ball. **All** propellants are impact sensitive and may ignite on impact.
- Do not cup hand over end of ramrod while loading.
- Close container before discharging firearm.

**CAUTION: NEVER SMOKE OR USE ANY SOURCE OF ACCIDENTAL IGNITION WHILE LOADING, SHOOTING OR HANDLING PYRODEX.**

- Never leave firearm loaded.
- Always clean firearm. Be certain the firearm is unloaded prior to cleaning.
- Clean up any spilled powder – **do not use vacuum cleaner.**
- If you are not willing to accept the responsibilities involved in the safe handling and use of Pyrodex, return the Pyrodex to the place of purchase for a full refund of the purchase price. If you have any questions about the safe use of Pyrodex, contact Hodgdon Powder Company.

**Handle Pyrodex with care and keep Pyrodex out of reach of children and people who are not aware of the hazards involved! Do not take Pyrodex internally.**

**Failure to use Pyrodex in accordance with our instructions and data may result in severe personal injury or death to user and/or bystander.**

## Disclaimer

Hodgdon specifically disclaims any warranties with respect to any and all products sold or distributed by it, the safety or suitability thereof, or the results obtained, whether express or implied, including without limitation, any implied warranty of merchantability or fitness for a particular purpose and/or any other warranty. Buyers and users assume all risk, responsibility and liability whatsoever for any and all injuries (including death), losses, or damages to persons or property (including consequential damages), arising from the use of any product or data, whether or not occasioned by seller's negligence or based on strict product liability or principles of indemnity or contribution. Hodgdon neither assumes nor authorizes any person to assume for it any liability in connection with the use of any product or data.

The individual assumes the risk of safe loading practices. Failure to do so or violation of any of the above warnings could result in severe personal injury (including death) to the user and/or bystanders or gun damage.

**WARNING: CANNON SHOOTING DISCLAIMER** Only cannons which have been manufactured by persons competent in ordinance construction and which have been inspected by a person qualified to determine fitness for firing may be suitable to be fired with either Pyrodex or blackpowder. However, as a matter of official policy, Hodgdon Powder Co. has no data or recommendations for the use of either Pyrodex or blackpowder in any cannon. In addition, we make no statements of fact or opinions regarding such use. *The user thereof assumes his or her own risk in doing so and is warned that the use of Pyrodex or blackpowder in cannons could result in bodily injury and/or death to the user and/or bystanders and/or loss of property.*

## MUZZLELOADING RIFLE AND SHOTGUN DATA FOR PYRODEX P, RS, SELECT

*Set your blackpowder measure at the volume settings shown*

### MUZZLELOADING RIFLES (ROUND BALL)

CALIBER	BALL DIAMETER	POWDER TYPE	POWDER MEASURE SETTING	VELOCITY FPS
32	.310	P	30 Gr.	1800
36	.360	P	43 Gr.	1794
40	.395	P	48 Gr.	1751
44	.437	P	72 Gr.	1770
45	.440	P	75 Gr.	1785
50	.490	RS/SEL	96 Gr.	1879
54	.535	RS/SEL	120 Gr.	1890
58	.560	RS/SEL	100 Gr.	1288

### MUZZLELOADING RIFLES WITH CONICAL BULLETS

Do not use Pyrodex "P" with Conical Bullets, all loads shown are maximum.

BULLET*	CALIBER	BULLET WT/TYPE	POWDER TYPE	POWDER MEASURE SETTING	VELOCITY FPS
Buffalo	45	325 Gr. / HPHB	RS/SEL	100 Gr.	1409
Buffalo	45	285 Gr. / HPHB	RS/SEL	100 Gr.	1458
Hornady	45	285 Gr. / HP	RS/SEL	85 Gr.	1550
Hornady	45	325 Gr. / Solid	RS/SEL	85 Gr.	1500
T/C	45	190-200 Gr. / MAXI	RS/SEL	110 Gr.	1902
T/C	45	240-255 Gr. / MAXI	RS/SEL	100 Gr.	1735
T/C	45	320 Gr. / MAXI	RS/SEL	100 Gr.	1612
Buffalo	50	350 Gr. / HPBT	RS/SEL	110 Gr.	1370
Buffalo	50	385 Gr. / HPHB	RS/SEL	110 Gr.	1478
Buffalo	50	410 Gr. / HPFB	RS/SEL	110 Gr.	1438
Buffalo	50	490 Gr. / HPFB	RS/SEL	90 Gr.	1142
Hornady	50	385 Gr. / HP	RS/SEL	90 Gr.	1400
Hornady	50	410 Gr. / Solid	RS/SEL	90 Gr.	1400
T/C	50	275-320 Gr. / MAXI	RS/SEL	110 Gr.	1661
T/C	50	350-370 Gr. / MAXI	RS/SEL	100 Gr.	1525
T/C	50	460-470 Gr. / MAXI	RS/SEL	110 Gr.	1416
Buffalo	54	390 Gr. / HPHB	RS/SEL	120 Gr.	1427
Buffalo	54	425 Gr. / HPHB	RS/SEL	120 Gr.	1536
Buffalo	54	460 Gr. / HPFB	RS/SEL	110 Gr.	1340
Buffalo	54	510 Gr. / HPFB	RS/SEL	120 Gr.	1288
Hornady	54	425 Gr. / HP	RS/SEL	105 Gr.	1400
T/C	54	360-365 Gr. / MAXI	RS/SEL	120 Gr.	1607
T/C	54	430-435 Gr. / MAXI	RS/SEL	120 Gr.	1499
T/C	54	530-540 Gr. / MAXI	RS/SEL	120 Gr.	1396
Buffalo	58	525 Gr. / HPFB	RS/SEL	100 Gr.	1159
Hornady	58	525 Gr. / HP	RS/SEL	90 Gr.	1275
T/C	58	555-560 Gr. / MAXI	RS/SEL	120 Gr.	1331
Cast	58	315 Gr. / MINI	RS/SEL	100 Gr.	1020
Cast	58	505 Gr. / MINI	RS/SEL	93 Gr.	880

\*Hornady Bullet data by Hornady Manufacturing. T/C Bullet data by Thompson Center. Buffalo Bullet data by Buffalo Bullets.

# MUZZLELOADING RIFLES WITH SABOT LOADS

All loads shown are maximum.

<u>SABOT*</u>	<u>CALIBER</u>	<u>BULLET WT/DIAMETER</u>	<u>POWDER TYPE</u>	<u>POWDER MEASURE SETTING</u>	<u>VELOCITY FPS</u>
Muzzeloader Mag.	45	125-140 Gr. / .355-.357	RS/SEL	80 Gr.	1920
Muzzeloader Mag.	45	145-160 Gr. / .355-.357	RS/SEL	80 Gr.	1920
Hornady	45	158 Gr. / .357	RS/SEL	80 Gr.	1800
Buffalo	50	225 Gr. / Buffalo	RS/SEL	90 Gr.	1650
Buffalo	50	252 Gr. / Buffalo	RS/SEL	90 Gr.	1553
Buffalo	50	302 Gr. / Buffalo	RS/SEL	100 Gr.	1524
Muzzeloader Mag.	50	180-200 Gr. / .429-.430	RS/SEL	90 Gr.	1700
Muzzeloader Mag.	50	210-240 Gr. / .429-.430	RS/SEL	90 Gr.	1630
Muzzeloader Mag.	50	265 Gr. / .429-.430	RS/SEL	90 Gr.	1590
Muzzeloader Mag.	50	185-200 Gr. / .451-.452	RS/SEL	90 Gr.	1730
Muzzeloader Mag.	50	225-240 Gr. / .451-.452	RS/SEL	90 Gr.	1640
Muzzeloader Mag.	50	260 Gr. / .451-.452	RS/SEL	90 Gr.	1590
T/C Break 'o' Way	50	200 Gr. / .429	RS/SEL	100 Gr.	1730
T/C Break 'o' Way	50	240 Gr. / .429	RS/SEL	100 Gr.	1640
Hornady	50	240 Gr. / .429	RS/SEL	90 Gr.	1600
Hornady	50	300 Gr. / .429	RS/SEL	85 Gr.	1400
Buffalo	54	225 Gr. / Buffalo	RS/SEL	90 Gr.	1735
Buffalo	54	252 Gr. / Buffalo	RS/SEL	90 Gr.	1487
Muzzeloader Mag.	54	180-200 Gr. / .451-.452	RS/SEL	90 Gr.	1600
Muzzeloader Mag.	54	225-240 Gr. / .451-.452	RS/SEL	90 Gr.	1550
Muzzeloader Mag.	54	260 Gr. / .451-.452	RS/SEL	90 Gr.	1510
T/C Break 'o' Way	54	200 Gr. / .429-.430	RS/SEL	120 Gr.	1871
T/C Break 'o' Way	54	240 Gr. / .429-.430	RS/SEL	110 Gr.	1728
Hornady	54	265 Gr. / .429	RS/SEL	90 Gr.	1600
Hornady	54	300 Gr. / .429	RS/SEL	90 Gr.	1400
Muzzeloader Mag.	58	225-240 Gr. / .451-.452	RS/SEL	100 Gr.	1450
Muzzeloader Mag.	58	250-260 Gr. / .451-.452	RS/SEL	100 Gr.	1500
Hornady	58	300 Gr. / .452	RS/SEL	95 Gr.	1350

\*Hornady Sabot data by Hornady Manufacturing. T/C Sabot data by Thompson Center. Buffalo Sabot data by Buffalo Bullets.

## MUZZLELOADING SHOTGUNS

<u>GAUGE</u>	<u>SHOT WT. OZ.</u>	<u>WAD COLUMN</u>	<u>POWDER TYPE</u>	<u>POWDER MEASURE SETTING</u>	<u>VELOCITY FPS</u>
12	1 1/4	.135 CARD + 1/4" FILLER	RS/SEL	100 Gr.	1081
12	1 1/8	.135 CARD + 1/4" FILLER	RS/SEL	100 Gr.	1190
20	1	.135 CARD + 1/4" FILLER	RS/SEL	90 Gr.	1070
20	7/8	.135 CARD + 1/4" FILLER	RS/SEL	80 Gr.	1115

## CAP AND BALL REVOLVERS AND MUZZLELOADING PISTOLS

*Set your blackpowder measure at the volume settings shown*

### MUZZLELOADING PISTOLS (ROUND BALL) – NOT REVOLVERS

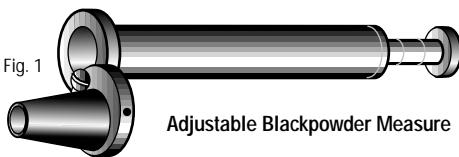
<u>CALIBER</u>	<u>BALL DIAMETER</u>	<u>POWDER TYPE</u>	<u>POWDER MEASURE SETTING</u>	<u>VELOCITY FPS</u>
40	.395	P	29 Gr.	840
45	.440	P	37 Gr.	820
50	.490	P	47 Gr.	790

### CAP AND BALL REVOLVERS

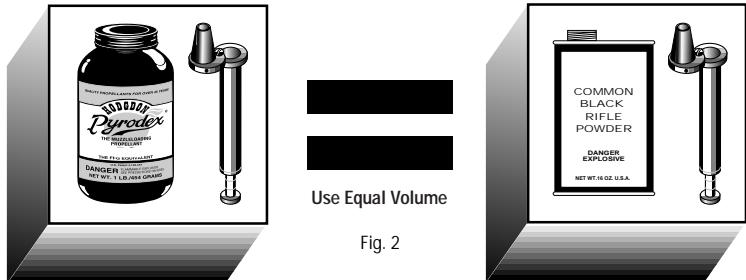
All loads shown are maximum.

<u>CALIBER</u>	<u>BALL DIAMETER</u>	<u>TYPE</u>	<u>POWDER MEASURE SETTING</u>	<u>VELOCITY FPS</u>
31	.320 or 0 Buckshot	P	12 Gr.	580
36	.375 or 0000 Buckshot	P	28 Gr.	935
44	.451 or .454	P	37 Gr.	910
44	.451 or .454	Pyrodex Pistol Pellet		800
45 Ruger	.457 Round ball	P	43 Gr.	986

# QUICK AND EASY GUIDE TO PYRODEX USE



Adjustable Blackpowder Measure



Use Equal Volume

Fig. 2

1. *Pyrodex and blackpowder should always be measured with a blackpowder measure (Fig. 1). Pyrodex and blackpowder use equal charges of powder by volume when you use a blackpowder measure (Fig. 2). Pyrodex and blackpowder should never be measured in a powder measure made for smokeless powder.*
2. To use Pyrodex simply find the load that you want to try in this brochure, set your blackpowder measure for the number of grains of powder in the recipe, fill your blackpowder measure with Pyrodex and load as usual.
3. If you find a recipe for a load that calls for blackpowder, set your blackpowder measure for the number of grains of powder in the recipe, fill your blackpowder measure with Pyrodex instead of blackpowder and load as usual.
4. Remember, that the maker of your blackpowder gun will tell you the maximum powder charge to use. Never use more powder than the maker of your gun says is safe.
5. **NEVER** weigh powder charges of blackpowder or Pyrodex. Weighing will not increase accuracy by any measurable amount. **ALWAYS** use a powder measure designed for use with blackpowder.

**Shooting a blackpowder firearm is fun and exciting. It is also simple. By following the directions in this brochure you will have a safe and satisfying experience using Pyrodex.**

# HODGDON MUZZLELOADING PRODUCTS

AVAILABLE FROM YOUR PYRODEX DEALER



## PYRODEX® PACKS

Available in 50 caliber and 54 caliber. A complete system for the muzzleloading shooter; powder, caps, projectiles, cleaning patches and a powder measure in one package. Available with conical bullets or sabot/bullet.



## FUNNEL/ POURING CAP

Fits all Hodgdon 1 Lb. cans, doubles as funnel. Eliminates the mess and danger from spilled powder. Convenient for Pyrodex and smokeless powder users for transferring powder from can to measure or other container.



## PYRODEX EZ CLEAN

Hodgdon's special muzzleloader cleaner in a convenient 8 ounce spray bottle. Pyrodex EZ Clean is all natural, environmentally safe and will not harm wood or metal surfaces. Use Pyrodex EZ Clean to make cleaning of any muzzleloading firearm simple and quick. Removes fouling and dissolves the salts produced when common blackpowder or Pyrodex is fired. Pyrodex EZ Clean kills the smell associated with blackpowder.